AMENDMENT

In the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A fluorescence image device comprising:

first means for containing constituents to be analyzed;

second means for illuminating with polarized light the constituents to be analyzed; and

third means for reading out a fluorescence light emitted by the constituents under the action of the polarized light,

said first means having a structure of N parallel microchannels defining a plane, N being an integer, said second means having at least one coupling device for guiding said polarized light into said N parallel microchannels so as to obtain N fluorescent sections, ~~the angle of incidence of said polarized light into said N parallel microchannels being approximately 90° relative to said plane~~ said polarized light forming a beam substantially parallel to said plane.

2. (Previously presented) The device according to claim 1, characterized in that said N parallel microchannels are etched in a glass or high optical quality plastic or silicon support chip.

3. (Previously presented) The device according to claim 1, characterized in that said N parallel microchannels are flexible capillaries.

4. (Previously presented) The device according to claim 1, characterized in that the coupling device comprises a diffraction grating.

5. (Previously presented) The device according to claim 1, characterized in that the coupling device comprises a cylindrical lens.

6. (Previously presented) The device according to claim 1, characterized in that the second means comprise a laser or a microlaser for illuminating the whole of the microchannel structure and in that the third means comprise a first polarizing filter for filtering, firstly, a first component of the polarized fluorescence light according to a first direction and a second polarizing filter for filtering, secondly, a second component of the polarized fluorescence light according to a direction perpendicular to the first direction.

7. (Previously presented) The device according to claim 6, characterized in that it comprises a filter wheel for switching the first filter and the second filter.

8. (Previously presented) The device according to claim 1, characterized in that the second means comprise a laser or microlaser for illuminating the whole of the microchannel structure and in that the third means comprise a birefringent crystal for separating the fluorescence light emitted according to two components polarized perpendicularly to each other.

9. (Previously presented) The device according to claim 6, characterized in that the laser or microlaser emits at a first wavelength substantially between 488 nm and 514 nm or at a second wavelength substantially between 550 nm and 580 nm.

10. (Previously presented) The device according to claim 1, characterized in that the second means comprise a first laser or microlaser for illuminating a first area of said structure of N parallel microchannels and a second microlaser for simultaneously illuminating a second area of said structure of N parallel microchannels and in that the third means comprise a birefringent crystal for separating the fluorescence light emitted according to two components polarized perpendicularly to each other.

11. (Previously presented) The device according to claim 10, characterized in that the first laser or microlaser emits at a first wavelength substantially between 488 nm and 514 nm and the second microlaser emits at a second wavelength substantially between 530 nm and 550 nm.

12. (Original) The device according to claim 8, characterized in that the birefringent crystal is LiNb03 crystal or a calcite crystal.

13. (Previously presented) The device according to claim 3, characterized in that the coupling device comprises a diffraction grating.

14. (Previously presented) The device according to claim 3, characterized in that the coupling device comprises a cylindrical lens.

15. (Original) The device according to claim 10, characterized in that the birefringement crystal is a LiNb03 crystal or a calcite crystal.